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6240

Date: 23 March 1982

Memorandum for the Record

From: Ms. Betz, Quality Control Lab., Environmental Section, NREAB, BMaintDiv

Subj: Suspected Chemical Dump, Rifle Range Area; Sampling on 18 March 1982 of

- Encl: (1) Figures of Water and Well Depths of the Test Wells
- (2) Table of Sample Information
- (3) Rain Fall Readings

1. On 17 March 1982, Ens. Kalisch's Rad Pool was pumped down, by the Outside Plumbing Shop, to about 8" of water. The bottom was mostly leaves and logs. The water was forced down the hill.
2. On 18 March 1982, Jerry Wallmeyer of LantDiv, Gaines Huneycutt and Elizabeth Betz of NREAB, Wallace Eakes of NEESA, and five men from the Consulting Firm from Gainesville, Fla, went out to the Chemical Dump.
3. Upon arrival the Rad pool was checked and the water level had risen about 4 ft, since the day before.
4. Then the group walked through the Dump. All three wells were located.
5. Portions of the Dump had been prescribed burned. A fire break had been cut through the Dump. The break had disturbed the soil. The barrel that had been in a pool was gone. Traces of a barrel was seen on the fire break. A lot of chemical test kits, consisting of plastic vials, like in Hach kits, were found in the fire break. They were labelled "Sampling Tube-White Dot Tubes." There were other vials that were glass and a little larger. There were some crystals that looked like $CuSO_4$, color wise.
6. Jerry Wallmeyer had brought an Isco pump, Model 1580, and a generator to be used to pump out the Test Wells. He wanted to pump the wells down in the morning and in the afternoon come back and pump them again and take samples. This way the samples would more correctly reflect the ground water. He also wanted to take well depths and water depths.
7. Jerry Wallmeyer started with test well 15, located on the road side edge of the dump. Test Well 15 had an elbow joint in it which made it impossible to take depths and pump. Mr. Wooten, Director of NREAB, who had come out for a few minutes, went back to Mainside and had the necessary tools sent back to take the elbow out of Test Well 15.
8. While waiting for the equipment for Test Well 15, we moved on to Test Well 16. Test Well 16 was determined to be 11'7" deep, with water at 28" from the top. The well was pumped for about 20 minutes, to dry, at 1045. The sample was taken at 1535 that afternoon. See Enclosure (1)
9. Test Well 17 was determined to be 25'1" with water at 61". This well had never been sampled before. An old hand pump had always been used and no water was ever ob-

Memorandum for the Record

From: Mr. Jerry Quality Control Lab., Environmental Section, WREAB, BMS/11/11

Subject: Suspected Chemical Dump, Kallie Ridge Area, Sampling on 18 March 1982

- Encl: (1) Figures of Water and Well Depths of the Test Wells
- (2) Table of Sample Information
- (3) Rain Fall Readings

1. On 17 March 1982, Mr. Kallie's had pool was dumped down by the Outside Dumping Shop, to about 3" of water. The bottom was mostly leaves and logs. The water was forced down the hill.
2. On 18 March 1982, Jerry Wainwright of BMS/11/11, Gaines Humphreys and Elizabeth Bell of WREAB, Wallace Baker of WREAB, and five men from the Contracting Firm from Gainesville, Fla, went out to the Chemical Dump.
3. Upon arrival the had pool was checked and the water level had risen about 4 ft. since the day before.
4. Then the group walked through the dump. All three wells were located.
5. Workers of the Dump had been alerted during. A fire break had been cut through the Dump. The break had disturbed the soil. The barrel that had been in a pool was gone. Traces of a barrel was seen at the fire break. A lot of chemical dust, consisting of plastic vials, like in how kits were found in the fire break. They were labeled "Sampling Tube-White Dot Labels". There were other vials that were glass and plastic labels. There were some crystals that looked like CaSO₄ color water.
6. Jerry Wainwright had brought in Jack Pump, Model 1100, and a generator to be used to pump out the Test Wells. He wanted to pump the wells down in the morning and in the afternoon come back and pump them again and take samples. This way the samples would more correctly reflect the ground water. He also wanted to raise well depths and water depths.
7. Jerry Wainwright started with Test Well 11, located on the east side of the dump. Test Well 11 had an elevation of 117.7 feet which made it impossible to pump down and pump. Mr. Wainwright, Director of WREAB, who had some air for a few minutes, went back to Matthews and had the necessary tools sent back to take the air out of Test Well 11.
8. While waiting for the equipment for Test Well 11, we drove on to Test Well 12. Test Well 12 was determined to be 117.7 feet deep with a 28" from the top. The well was pumped for about 20 minutes, to dry, at 10:01. The sample was taken at 10:22 this afternoon. See Enclosure (1).
9. Test Well 13 was determined to be 21.1 ft with water at 5 ft. This well had never been sampled before. An old hand pump had always been used and no water was ever pumped.

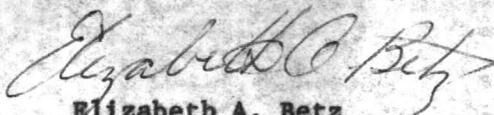
tained. Test Well 17 was pumped down 21'6" at 1120. The hose on the pump was not long enough to pump further. The sample was taken at 1150 that afternoon. See Enclosure (1).

10. After the elbow was removed from Test Well 15, it was determined why it was put there in the first place. The elbow helped to keep the pipe above the surface. The pipe was now 13" below the surface. The part of the elbow that still remained was 8" long, sideways. The well was determined to be 12' deep, with water 48" down from the elbow. The well was pumped dry at 1300 in about 5 minutes. The sample was pumped at 1525. See Enclosure (1).

11. While the Test Wells were left to fill up again, Wallmeyer, Huneycutt and Betz went to the Rifle Range to take samples. The regular five TTHM samples (Trihalomethanes) were taken. Along with the TTHM samples, two sample bottles were filled for Wallmeyer at each TTHM sample point. Wallmeyer also took four additional samples at various points in the treatment process in the Water Plant. Raw Water Wells RR47 and RR45 were running at the time. Samples were also taken from each of the three raw water wells RR97, 47, and 45. For the various sample numbers, times, collectors, and locations see Enclosure (2).

12. A sample was not taken at Ens. Kalisch's Rad Pool even though it had been pumped.

13. Wallmeyer also wanted Rain Fall statistics. Forestry takes readings at 0800 every Monday-Friday, in front of Bldg 1103. Enclosure (3) is a copy of Forestry's readings given to Wallmeyer.



Elizabeth A. Betz
Supervisory Chemist

10. After the show was removed from Test Well 12, it was determined why it was not there in the first place. The show failed to reach the surface above the surface. The pipe was now 127 below the surface. The part of the pipe that still remained was 2' long, sideways. The well was determined to be a test, with water being drawn from the show. The well was pumped dry at 1280 ft about 3 minutes. The result was pumped at 1225. See Enclosure (1).

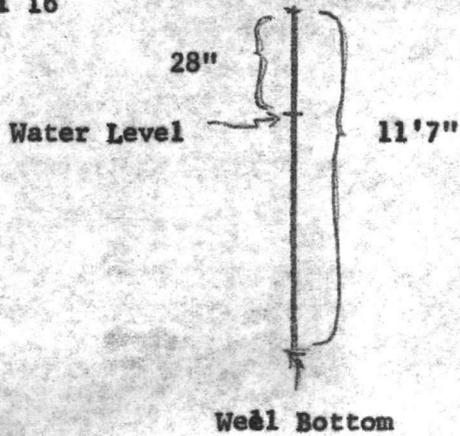
11. While the test wells were left to fill up again, Williams, Amoy and Dora went to the Radio Range to take samples. The regular time was 10:00 AM. (11:00 AM) and 1:00 PM. Along with the first samples, two sample bottles were filled for Williams. At each time sample point, Williams also took four additional samples at various points in the treatment process at the water plant. The water wells R2A, R2B and R2C were running at the time. Samples were also taken from each of the three water wells R2A, R2B and R2C. For the various sample numbers, times, collectors and locations see Enclosure (2).

12. A sample was not taken at the Radio Range but even though it had been pumped. Williams also wanted to take samples at the Radio Range at 1200 ft. Every four days, in order of 1200 ft. Enclosure (3) as a copy of Williams' findings given to Williams.

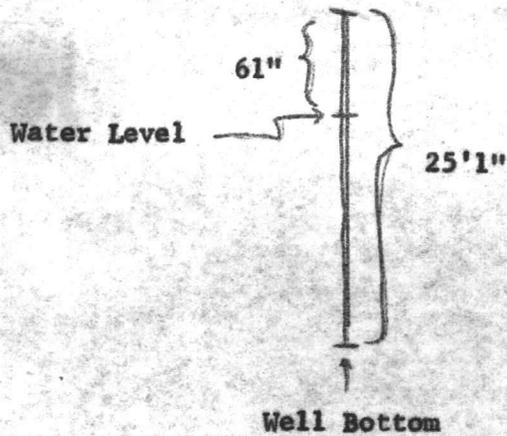
[Handwritten Signature]
Elizabeth A. Lee
Supervisory Chemist

Figures of Water and Well Depths of the Test Wells

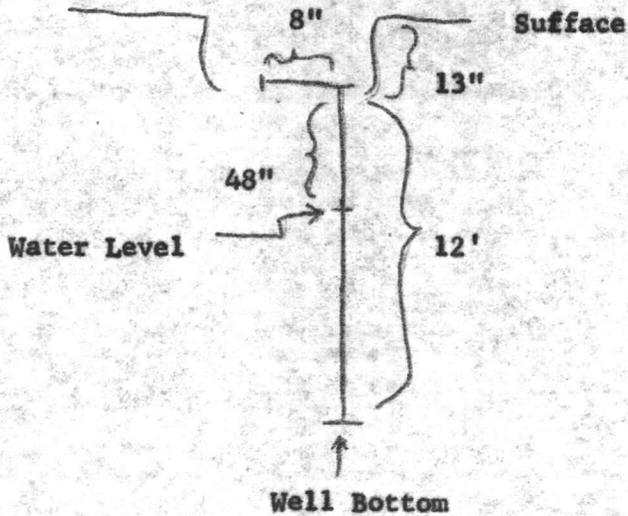
Test Well 16



Test Well 17



Test Well 15



Figures of water and well depths of the Test Wells

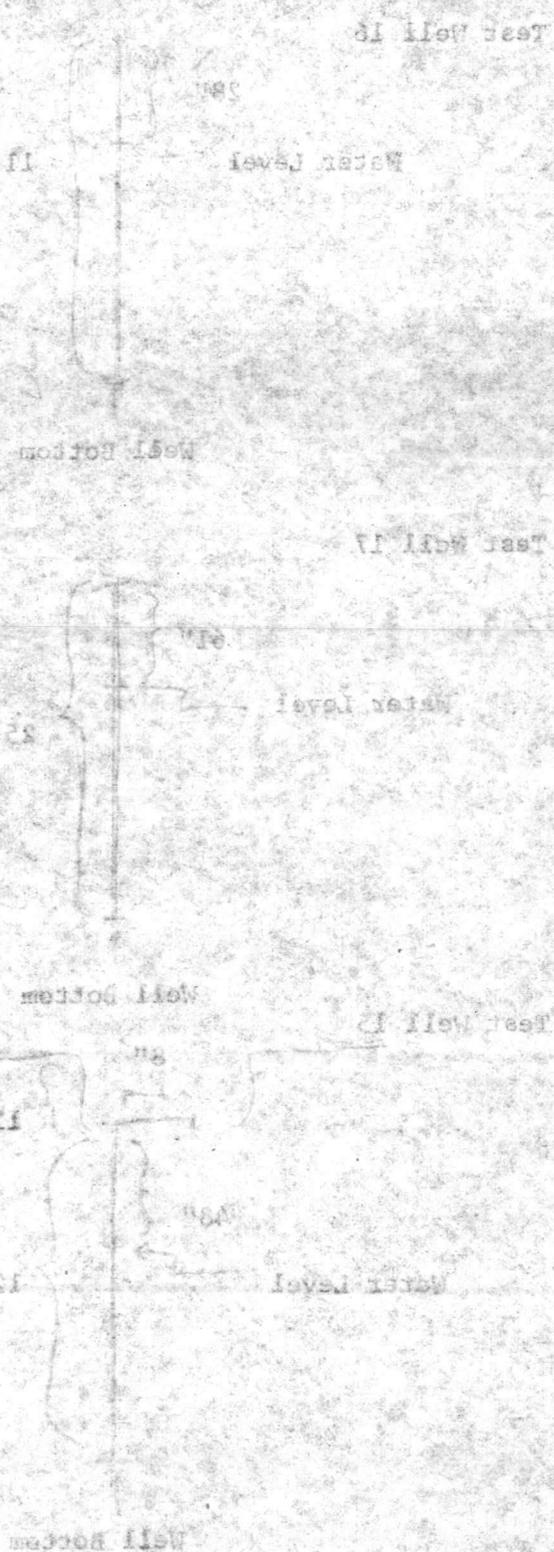


Table of Sample Information

<u>Sample #</u>	<u>Sample Location</u>	<u>Time</u>	<u>Collector</u>
576 (THM)	WTP (RR-85) Raw-Below Aerator	1335	Huneycutt
577 (THM)	WTP (RR-85) Treated-From Tap (Delivered)	1340	Huneycutt
578 (THM)	RR-6, Fire House	1345	Huneycutt
RR-6 A&B	RR-6, Fire House	1345	Huneycutt
579 (THM)	RR-10, Snack Bar	1350	Huneycutt
RR-10 A&B	RR-10, Snack Bar	1350	Huneycutt
580 (THM)	RR-92, Sewage Plant	1355	Huneycutt
RR-92 A&B	RR-92, Sewage Plant	1355	Huneycutt
1 A&B	WTP (RR-85) Raw-Below Aerator	1405	Huneycutt
2 A&B	WTP (RR-85) To Filter Pumps	1410	Huneycutt & Wallmeyer
3 A&B	WTP (RR-85) After Filter	1415	Huneycutt & Wallmeyer
4 A&B	WTP (RR-85) After Softener	1418	Huneycutt
5 A&B	WTP (RR-85) Finished Water	1420	Huneycutt
6	WTP (RR-85) Treated-From Tap (Delivered)	1420	Wallmeyer
RR-47	RR-47, Raw Water Well	1435	Huneycutt & Wallmeyer
RR-45	RR-45, Raw Water Well	1440	Huneycutt
RR-97	RR-07, Raw Water Well	1450	Huneycutt
TW-15	Test Well 15, Chemical Dump	1525	Betz, Huneycutt, Wallmeyer
TW-16	Test Well 16, Chemical Dump	1535	Betz, Huneycutt, Wallmeyer
TW-17	Test Well 17, Chemical Dump	1550	Betz, Huneycutt, Wallmeyer

Enclosure (2)

Table of Sample Information

Sample #	Sample Location	Time	Collector
276 (TH)	WT(RR-02) Raw-Below Aerator	1335	Haneycutt
277 (TH)	WT(RR-02) Treated-From Tan(Delivered)	1340	Haneycutt
278 (TH)	RR-06, Vets House	1343	Haneycutt
RR-06 A&B	RR-06, Vets House	1343	Haneycutt
279 (TH)	RR-10, Snack Bar	1350	Haneycutt
RR-10 A&B	RR-10, Snack Bar	1350	Haneycutt
280 (TH)	RR-02, Sewage Plant	1353	Haneycutt
RR-02 A&B	RR-02, Sewage Plant	1353	Haneycutt
1 A&B	WT(RR-02) Raw-Below Aerator	1402	Haneycutt
2 A&B	WT(RR-02) To Filter Ponds	1410	Haneycutt & Wallmeyer
3 A&B	WT(RR-02) After Filter	1415	Haneycutt & Wallmeyer
4 A&B	WT(RR-02) After Collector	1415	Haneycutt
5 A&B	WT(RR-02) Treated water	1420	Haneycutt
6	WT(RR-02) Treated-From Tan(Delivered)	1430	Wallmeyer
RR-07	RR-07, Raw Water Well	1432	Haneycutt & Wallmeyer
RR-05	RR-05, Raw Water Well	1440	Haneycutt
RR-07	RR-07, Raw Water Well	1450	Haneycutt
TW-15	Tan Well 15, Chemical Dump	1522	Beck, Haneycutt, Wallmeyer
TW-16	Tan Well 16, Chemical Dump	1533	Beck, Haneycutt, Wallmeyer
TW-17	Tan Well 17, Chemical Dump	1550	Beck, Haneycutt, Wallmeyer

Enclosure (2)

Rain Fall Readings

For February 1982

Date	Inches
3	1.7
10	0.75
17	2.3
19	0.30
22	0.2

For March 1982

Date	Inches
1	0.80
2	0.2
5	0.1
8	1.6
16	1.15

1. Read at 0800 every Monday-Friday, in front of Bldg 1103(NREAB Office)
2. Missing dates had no recordable rain fall. Above data is from 1 February-19 March

Rain Fall Readings

For March 1961		For February 1961	
Inches	Date	Inches	Date
0.80	1	1.7	3
0.1	2	0.7	10
0.1	3	2.3	17
1.4	8	0.30	19
1.13	14	0.2	22

1. Read at USGS every Monday-Wednesday, in front of Bldg 1103 (NAMA Office)

2. Missing dates had no recordable rain fall. Above data is from 1 February-19 March